


JET PROPULSION LABORATORY California Institute of Technology • 4800 Oak Grove Drive, Pasadena, California

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Dr. Joshua Lederberg
Department of Genetics
Stanford University
Palo Alto, California

Dear Joshua:

Many thanks for the reprints and references. I am enclosing some prints of the flow diagrams, which I hope will be satisfactory. If you would like more I can have them made up anytime.

I have had preliminary conferences with our instrument people on your experiment. They are interested in the electronics, and I also hope to get someone interested in the microspectrophotometer. Whatever we cannot do here will be contracted outside.

Several possibilities were discussed. The use of a Fresnel lens for utilizing solar energy as a low power, high intensity illumination source for the spectrophotometry was suggested. This might be possible providing we can catch enough U.V.

A vidicon was preferred over the flying spot U.V. microscope.

A binocular type optical system, one side for U.V., the other for visible light, was discussed, in which dual images on the vidicon would be scanned and particle discriminations made.

It was considered necessary to study the trade-offs in the weight of a data reduction system vs. telemetry equipment, i.e., how much weight should be put into a data reduction system in order to decrease weight in telemetry equipment.

A rough estimate of total power was 10 watts if solar energy could be used in the illumination system.

I expect to have some work statements written up in a couple of weeks and I will send them up to you for your criticism.

Best regards,

JET PROPULSION LABORATORY



George L. Hobby
Senior Scientist

GLH:aef
Enclosures